

# Work Order ID 69072

Thursday, April 28, 2011 8:48:25 AM



Page 1

Item ID: D212-664-201

Accept



Setup Start



Revision ID:

Stop



Item Name: Crosstube Aft

Start Date: 4/28/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/6/2011 Req'd Qty: 1.00



Customer:

Reference: ECN11-549 / DEO - Rework

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D212-664-241

Rev D

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels as per PPP D212-664-201

CHG003

CHG004 8 w/lost log

for CL 11-5-3

230

0.00



Crosstubes

Crosstubes

Memo

0.00

Crosstubes

PULL FROM STOCK (OFFSHORE)  
1 X D212-664-201 B60449

-GRIND OFF PAINT ON INSIDE OF TUBE 2" WIDE, 2" AWAY FROM  
CUFFS PER DEO/ECN11-542.

-RE-ALODINE GROUND AREA

-PRIME ARE USING TEMPO YELLOW EPOXY PRIMER B

-SCUFF AND CLEAR COAT USING IMRON 500S

115620

11-05-02

<b>DART</b> Dart Aerospace Ltd. 1270 ABERDEEN ST. HAWKESBURY ONT CANADA K6A 1K7				TC APPROVAL #09-09 TEL: 1-613-632-5200	
P/N	D212-664-201	Q/N	CHG003		
DESC.	Crosstube Aft High	STC	SH01-9		
LOT	B60449	STC	SR01298NY		
MODEL	Bell 204/205/210/212/UH-1	STC			
MADE IN CANADA				02729-1	

**Work Order ID 69072**

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Start Date: 4/28/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 5/6/2011 Req'd Qty: 1.00



Customer:

Reference: ECN11-549 / DEO

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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240	QC5- Inspect part completeness to step on W/O	0.00							
-----	---	------	--	--	--	--	--	--	--



QC	Memo	0.00							
----	------	------	--	--	--	--	--	--	--

Quality Control

11	05	03	①
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250	Pick Kit	0.00							
-----	----------	------	--	--	--	--	--	--	--



Packaging	Memo	0.00							
-----------	------	------	--	--	--	--	--	--	--

Packaging

ENSURE ORIGINAL KIT IS RETURNED WITH TUBE

Leu/03 ①

260	QC4- 100% Inspect kits for completeness	0.00							
-----	---	------	--	--	--	--	--	--	--



QC	Memo	0.00							
----	------	------	--	--	--	--	--	--	--

Quality Control

8 w/05/03

①

**Work Order ID 69072**

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Page 3

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Start Date: 4/28/2011 Start Qty: 1.00

Required Date: 5/6/2011 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference: ECN11-549 / DEO

Run Start

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270	Packaging	0.00							
Packaging	Memo	0.00							
Packaging	RE-PACKAGE PER PPP USING NEW B/N NEW LABELS REQ'D Identify and pack for shipping as per PPP D212-664-201								
280	QC21- Final Inspection - Work Order Release	0.00							
QC	Memo	0.00							
Quality Control									

MF  
H05-03

DRAWING NO. D212-664-241	TITLE CROSSTUBE ASSY (205/212 HI AFT)	REV. D	DART AEROSPACE LTD. ENGINEERING ORDER		D.E.O. NO. D212-664-241-D-1	SHEET NO. SHEET 1 OF 2	SCALE NTS
DRAWN	CHECKED	MFG. APPR.	APPROVED	DE APPR.			
DATE 11.04.07	DATE 11.04.11	DATE 11.04.12	DATE 11/04/12	DATE 11.04.12			

**PURPOSE:**

ADD AN INSPECTION WINDOW TO UNDERSIDE OF CROSSTUBE.

**CHANGE:**

NOTES 2 OF SHEET 1 IS AMENDED AS FOLLOWS:

**IS:**

- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
MASK UNDERSIDE OF CROSSTUBE AS SHOWN (HATCHED AREA) AND  
PAINT OUTSIDE PER DART QSI 005 4.2  
REMOVE MASKING AND APPLY CLEAR COAT

**WAS:**

- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2

RELEASED  
2011-04-18

69072

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D212-664 Rev. F AND  
INSTRUCTIONS FOR CONTINUOUS AIRWORTHINESS ICA-D212-664 Rev. 6

REF. CANADIAN STC: SH01-9

REF. FAA STC: SR01298NY

REF. EASA STC: EASA.IM.R.S.01304

For D212-664-101/-201 High Fwd/Aft Crosstube at CHG 004 or later, and D412-664-203 Aft Crosstubes at CHG 007 or later, an inspection window has been added on the underside of the crosstube to facilitate inspection.

**IMPORTANT NOTE:** If a D212-664-101/-201 or D412-664-203 Crosstube was stripped of paint, it should now be refinished as follows:

- 1) Apply chemical conversion film material (AloDine 1200 or 1201) per MIL-C-5591 and one coat of MIL-P-85582 or MIL-P-23377 primer.
- 2) Mask underside of crosstube as per hatched area shown in Figures 1 and 2 as applicable.
- 3) Paint outside surfaces of crosstube by applying 2-3 coats of MIL-C-85285 polyurethane paint to match original finish.
- 4) Apply clear coat on inspection window (hatched area).

Additionally, on D412-664-203 Aft Crosstubes at CHG 007 or later, the D2856-600-1009 Abrasion Strips have been removed, and D3189-1 Chafing Shields have been bonded onto the crosstubes using Proseal 890. For D412-664-203 Aft Crosstubes at CHG 007 or later, amend Parts List of IIN-D212-664 Section 5.1 and ICA-D212-664 Section 32.11 as follows:

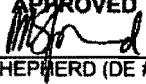
Remove:

Item	QTY -203	Part Number	Description
31	2	* D2856-600-1009	ABRASION STRIP

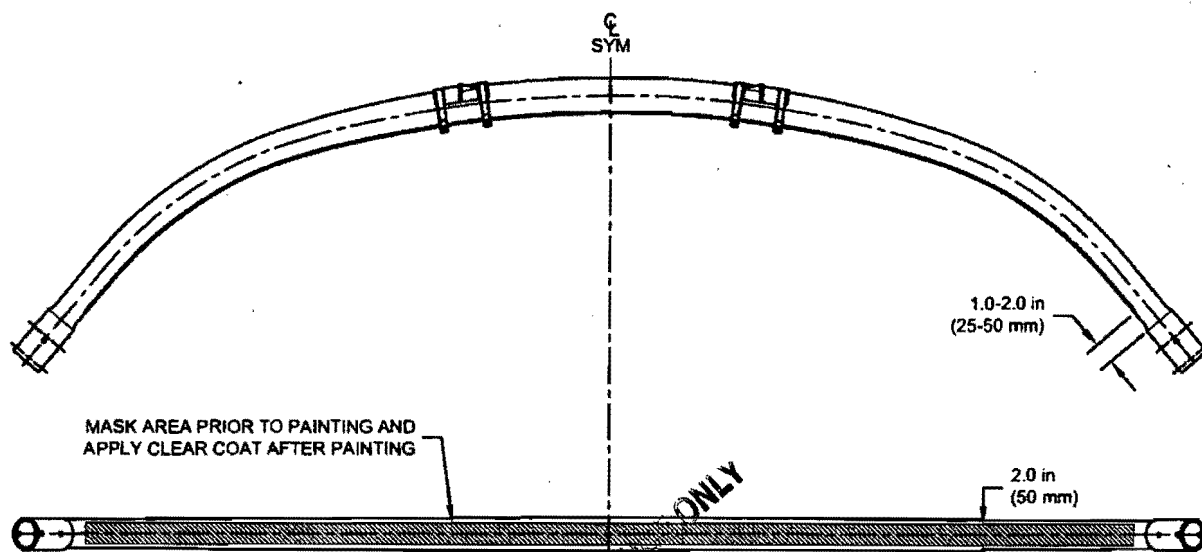
If a D3189-1 Chafing Shield is being re-installed on the crosstube, it should now be re-installed as follows:

- 1) Follow section 32.1 of ICA-D212-664 for the removal of the crosstubes from the helicopter.
- 2) Remove the qty(2) MS21920-28 Clamps from the crosstube that fasten the D3189-1 Chafing Shields to the crosstube (ref. section 32.5 of ICA-D212-664).
- 3) Remove the D2856-600-1009 Abrasion Strip from the crosstube per section 32.7 of ICA-D212-664.
- 4) Inspect the crosstube surface where the chafing shields and abrasion strips were installed for corrosion and mechanical damage per items 5.3.1 and 5.3.2 of the 300 hour inspection. Repair damage within acceptable limits per item 5.3.3 of the 300 hour inspection. Touch up finish per item 5.3.9 of 300 hour inspection. If crosstube was stripped of paint, refer to instructions below for suitable refinishing of crosstube.
- 5) Apply a 0.02" to 0.04" (0.5-1.0 mm) thick layer of Proseal 890 on the concave surface of D3189-1 Chafing Shields and let cure per manufacturer's instructions.
- 6) Once the Proseal on the D3189-1 Chafing Shields is cured, apply a thin layer of Proseal 890 on the crosstube to cover the area where the Chafing Shields will be installed.
- 7) Locate the D3189-1 Chafing Shield as shown in Figure 3. Ensure that the overlapping edge of the chafing shield is located at approximately 60° from bottom vertical to prevent deterioration of the rubber bumpers. Be sure to eliminate any air gaps.
- 8) Position and tighten the clamps to a torque of 80-100 in-lb (9.0-11.3 N-m).
- 9) Allow the assembly to cure for 12 hours.
- 10) Re-install the D412-664-203 crosstube per section 32.2 of ICA-D212-664.

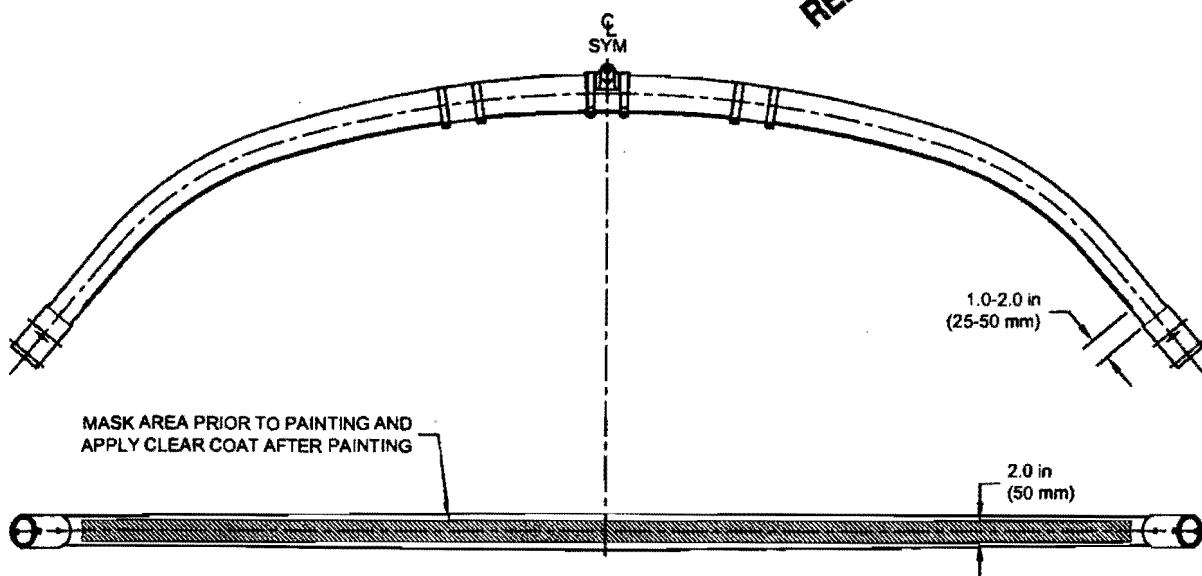
CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED  
BY:   
D. SHEPHERD (DE # 02)  
DATE: 11.04.01  
CERT. NO.: SH01-9  
ISSUE NO.: 3

A	NEW ISSUE	MB	11.04.01
REV.		BY	DATE
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		DSI 9549	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		D212-664 FINISHING CHANGE	NTS
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**FIGURE 1 - INSPECTION WINDOW ON  
D212-664-101/-201 CROSSTUBES**



**FIGURE 2 - INSPECTION WINDOW ON  
D412-664-203 CROSSTUBES**

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

**APPROVED**

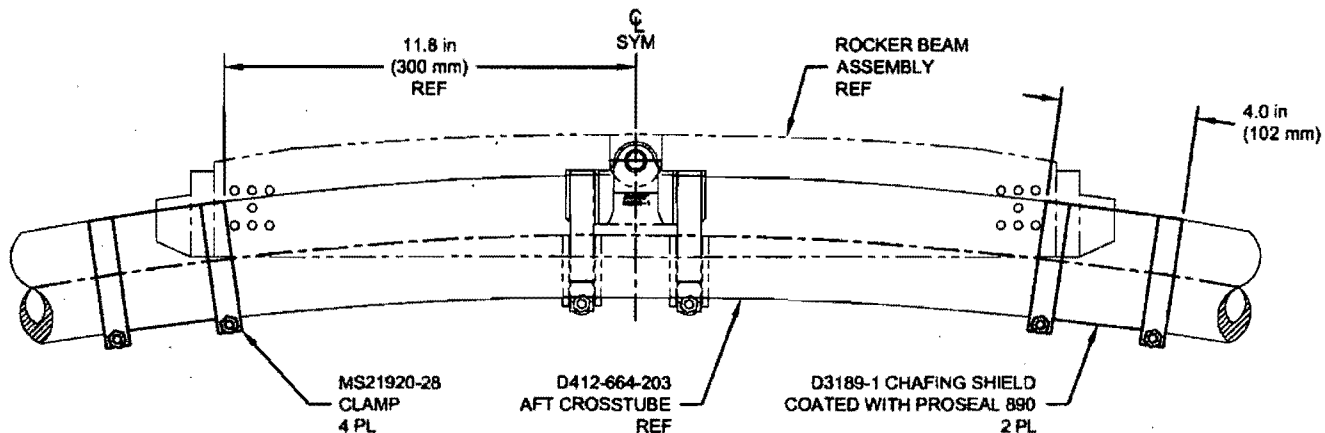
BY: *[Signature]*  
D. SHEPHERD (DE # 02)

DATE: 11.04.01

CERT. NO.: SH01-9

ISSUE NO.: 3

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**FIGURE 3 - CHAFING SHIELD  
INSTALLATION ON D412-664-203**

REFERENCE ONLY

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AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

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DATE: 11.04.01  
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